SONY

3-751-847-22(1)

Color Rear Video Projector

KPR-46CX25/46EX25

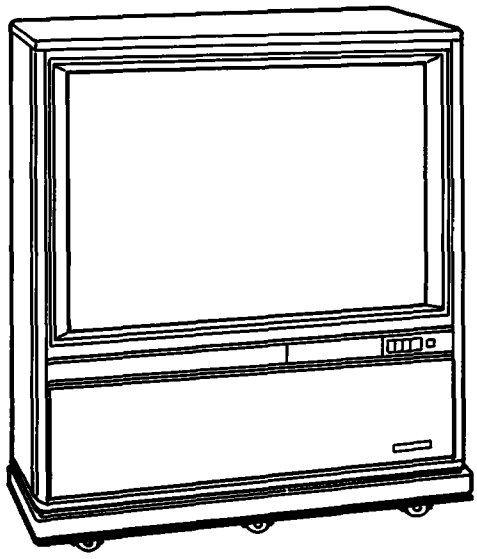
Operating Instructions

Before operating the unit, please read this manual thoroughly, and retain it for future reference.

Owner's Record

The model and serial numbers are located at the rear. Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. KPR- Serial No. _____



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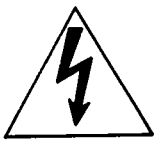
WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

For the customers in Canada

CAUTION:
TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

Note to CATV system installer:
This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Use of this color rear video projector for other than private performance of programs broadcast for the use of the general public may require authorization from the transmitter and/or owner of such programs. Use with cable television transmission may require authorization from the cable system transmitter and/or program owner.

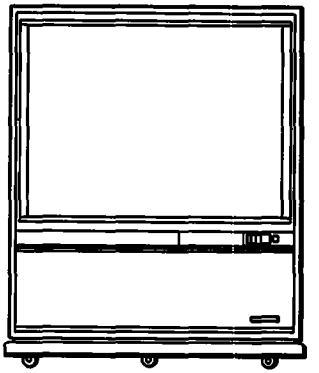
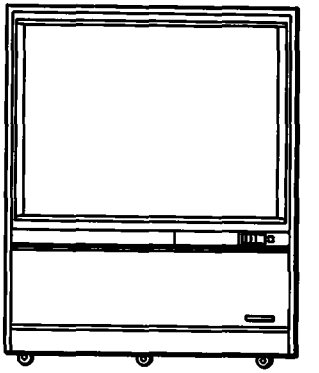
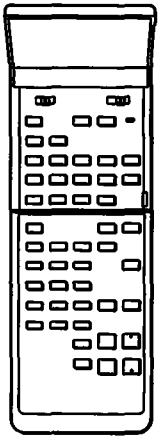
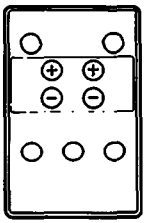
INFORMATION
This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient the receiving antenna
Relocate the equipment with respect to the receiver
Move the equipment away from the receiver
Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:
"How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No.004-000-00345-4.

Introduction

This manual covers two models, KPR-46CX25 and KPR-46EX25. The difference between them are only the design of the cabinet. All the functions are exactly same.
We use model KPR-46CX25 for the illustrations in this manual.

Model number	KPR-46CX25	KPR-46EX25
Design		
Supplied Remote Commander	 and 	

Features

- **Multiband VHF/UHF/CATV tuner** receives up to 125 cable channels for total of 181 possible off-air and cable channels.
- **Built-in MTS (Multichannel TV Sound) decoder** enables reception of stereo programs and Second Audio Program (SAP) broadcasts.
- **S VIDEO INPUT jack** which is connected to the S video output jack on the VCR allows superior pictures from the VCR to be displayed on the screen.
- **Built-in video and L/R audio line outputs** provide the selected output from the TV tuner or any of the equipment connected to the audio/video line inputs.
- **On-screen displays** for easy reference to operating modes and adjustments.

And other features for a high quality picture ...

- **New Dynamic picture™ system** adjusts picture contrast automatically to produce more detail in both bright and dark areas of every scene.
- **Colorpure Filter™** produces fine picture detail without color spill or color noise.
- **VM (Velocity Modulation) circuit** produces clean and sharp black and white contrasts.
- **Dynamic Focus™ circuit** automatically focuses the scanning electron beam for enhanced sharpness over the entire picture, especially in the corners.
- **Liquid cooled optically coupled** picture tubes with new coolant formulation and pressure release diaphragm for generating super-bright images without heat build-up.
- **Shading compensation circuit** assures proper color balance across the entire screen.
- **High voltage regulator** maintains consistent image size and prevents "zooming" in and out of focus during sudden scene changes from dark to light.
- **Hybrid lenses:** a multi-element combination of top-quality coated glass lenses and spherical acrylic lenses for the best light-transiting and focusing characteristics of both materials.
- **Multi-layer lens coating** increases brightness and improves contrast ratio by reflecting light beams forward again and again.
- **Improved blue phosphor** helps maintain long-lasting pure, clean whites.
- **Improved green phosphor** minimizes "burn-in" effect of still images on your VideoScope screen, for up to double the long-term luminescence of your system.

The supplied Remote Commander provides you with many other convenient features.

- **The programmable Remote Commander** allows you to operate video equipment made by Sony or other manufacturers.
- **Picture-in-picture feature** lets you watch more than one channel at once. TV channel or a video source can be displayed in a box inset into the corner of the main screen.
- **Sound Retrieval System (SRS®)*** enhances the natural sound of a stereo source. (It is also effective for monaural source.)
- **Sleep timer** automatically turns off the projector after approximately one hour.
- **Automatic programming** to preset all receivable channels instantly.
- **ANT/AUX button** permits one-touch selection of pay cable TV when a converter is connected.

* Sound Retrieval System (SRS®) reproduces the ambience and dynamics of the original live performance so that you can enjoy the sound as if you are at the concert hall or in the recording studio. SRS enables you to enjoy the optimum sound from anywhere in the room.

(●) SOUND RETRIEVAL SYSTEM

The (●) Sound Retrieval System is manufactured by Sony Corporation under license from the Hughes Aircraft Company, a subsidiary of GM Hughes Electronics. It is covered by U.S. Patent No.4, 748, 669. Other U.S. and foreign patents pending.

(●), Sound Retrieval System and SRS® are trademarks of the Hughes Aircraft Company, a subsidiary of GM Hughes Electronics.

Precautions

Safety

- Operate the unit only on 120 V AC.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not going to be used for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

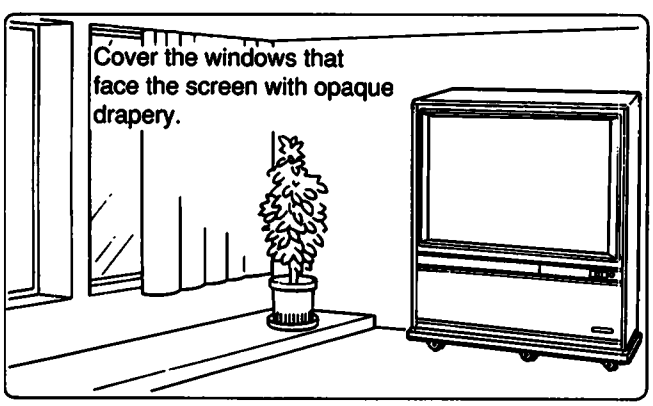
Installation

- To prevent internal heat build-up, do not block the ventilation openings.
- Do not install the unit in a hot or humid place or in a place subject to direct sunlight, excessive dust or mechanical vibration.
- Avoid operating the unit at temperatures below 5°C (41°F).
- After the unit has been transported from a cold location directly to a warm location, or if the room temperature has changed suddenly, pictures may be blurred or show poor color over portions of the picture. This is because moisture has condensed on the mirrors or lenses inside the projector. Wait until the moisture evaporates.
- Avoid placing the unit on a slanting or uneven floor.

Illumination

To obtain a clear picture, the screen should not be exposed to illumination or sunlight directly from the front.

Spot lighting directed down from the ceiling is recommended.



It is desirable to install the projector in a room whose floors and walls are not of light-reflecting material.
If these are of reflecting material, it would be desirable to change to a dark carpet or wall paper.

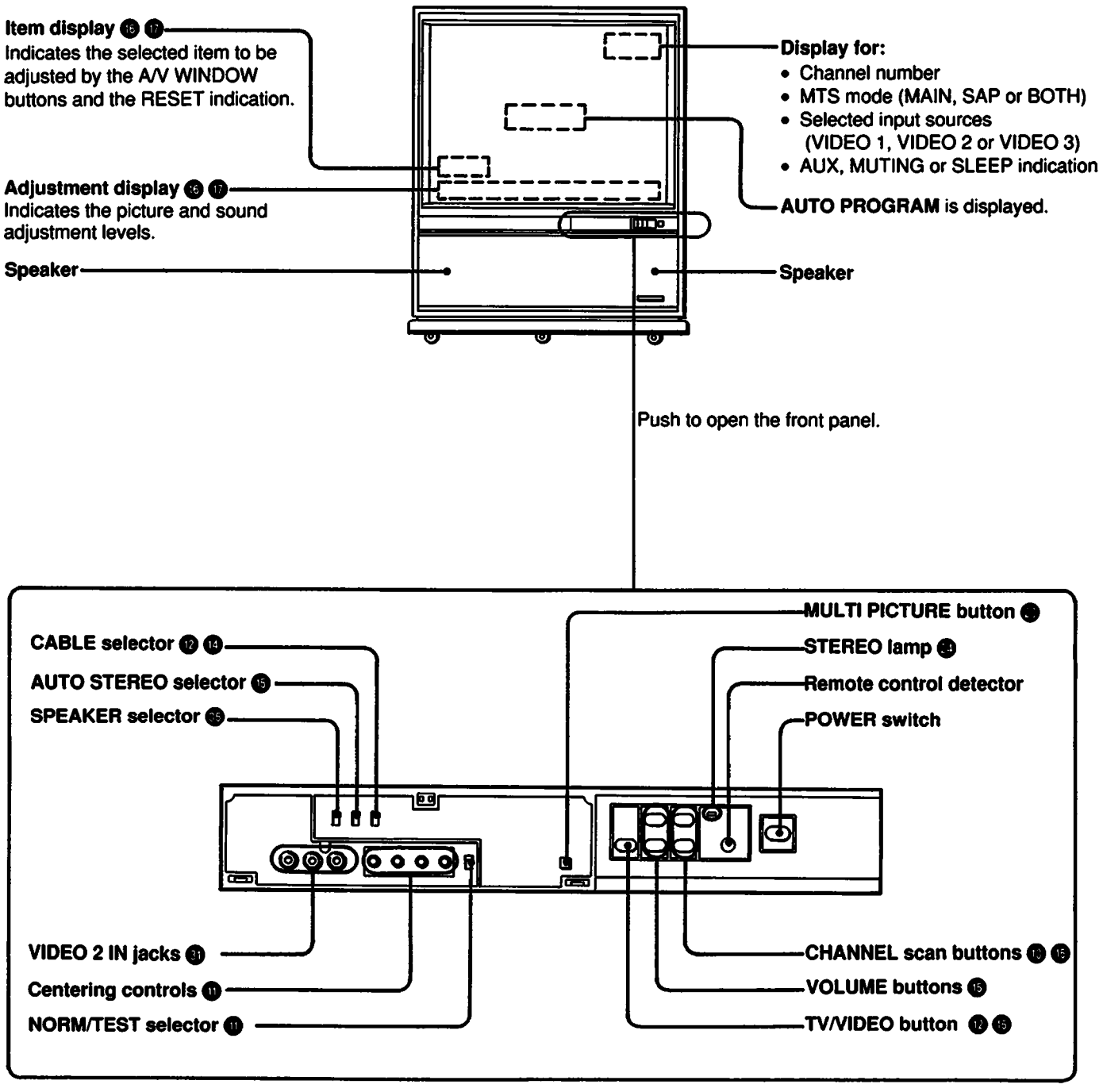
Maintenance

- Save the original shipping carton and packing material; they will come in handy if you ever have to ship your unit. For maximum protection, repack your unit as it was originally packed at the factory.
- To keep the cabinet looking brand-new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth slightly dampened with a mild detergent solution. Never use strong solvents such as thinner or benzine, or abrasive cleansers since these will damage the cabinet. As a safety precaution, unplug the unit before cleaning it.
- To remove dust from the front of the screen, unplug the unit and wipe it gently with a soft cloth slightly dampened with water or a mild detergent solution, using vertical strokes only. Then wipe it again with a dry, soft cloth. Never use solvents or thinners for cleaning purposes.
- If the picture becomes darkened after the unit has been in use for a long period of time, cleaning the inside of the unit may be required. Consult qualified service personnel for this.
- Do not keep the still picture displayed. It may cause a phosphor mark on the screen.

Location of Controls

For details, refer to the pages indicated in the circles.

Front

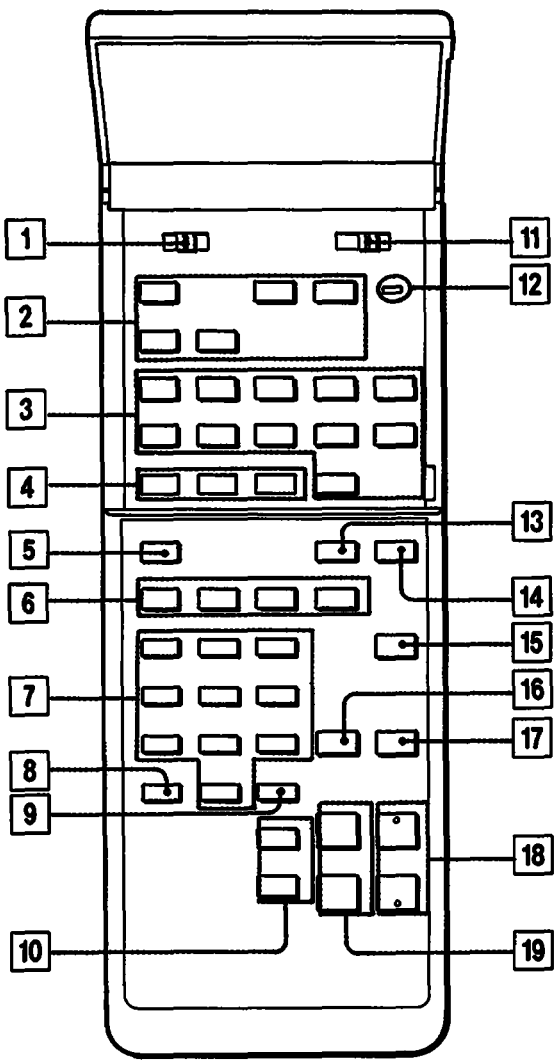


Remote Commander RM-779

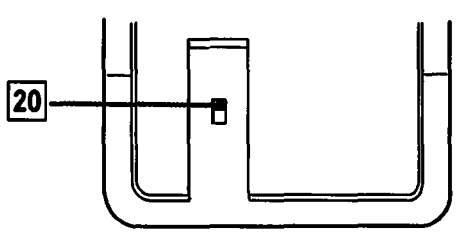
Note

Most of the operation requires the Remote Commander. Please do not lose it.

* The functions of these buttons are also available on the projector.



Rear



1 **PIP/VIDEO/CABLE selector** ⓲~㉓, ㉕~㉙

2 **A/V WINDOW buttons** ⓯ ⓱

3 **Buttons for picture-in-picture and Sony video equipment** ⓲ ㉕

4 **Channel presetting buttons** ⓬ ⓭ ⓮

5 **MUTING button** ㉔

6 **Input mode select buttons** (TV, VIDEO 1, VIDEO 2, VIDEO 3) ㉕

7 **Channel number buttons** ⓭ ⓯

8 **DISPLAY button** ㉔

9 **ENTER button** ⓭

10 **PICTURE buttons** ⓯

11 **VTR 1/2/3MDP selector** ㉕~㉙

12 **LEARN indicator** ㉘

13 **SLEEP button** ㉔

14 **POWER switch***

15 **ANT/AUX button** ⓬ ⓮

16 **SRS (Sound Retrieval System) button** ㉔

17 **MTS (Multichannel TV Sound) button** ㉔

18 **CH (channel) scan buttons*** ⓭ ⓯

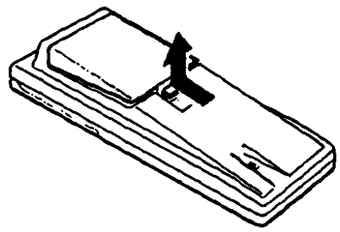
19 **VOL (volume) buttons*** ⓯

20 **USE/LEARN selector** ㉕~㉙

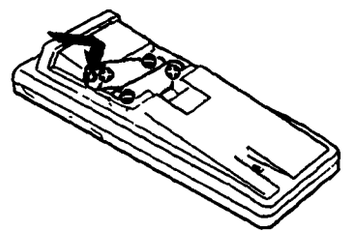
Preparing the Remote Commander

Battery installation

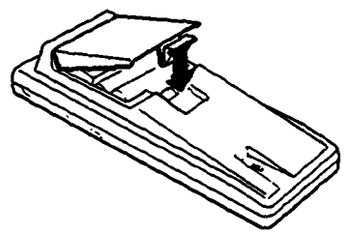
1 Push to open the lid.



2 Install two size AA (R6) batteries with the correct polarity.



3 Replace the lid.

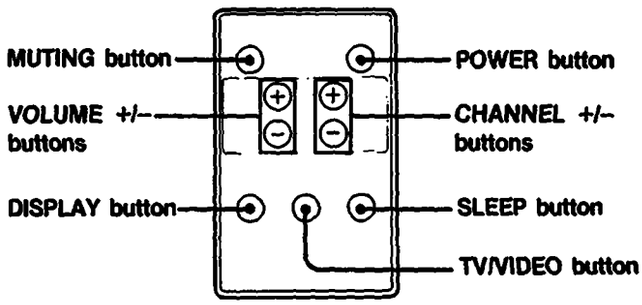


Notes

- In normal operation, batteries will last up to half a year. If the unit does not operate properly, the batteries might be exhausted. Replace all with new ones.
- To avoid damage from possible battery leakage, remove the batteries for extended unused periods.
- Be sure that there are no obstructions between the Remote Commander and the unit.
- Operable range is limited.
- If a Remote Commander that is not recommended is used to operate this projector, or if the supplied Remote Commander is used to operate other equipment, the equipment may not operate properly.

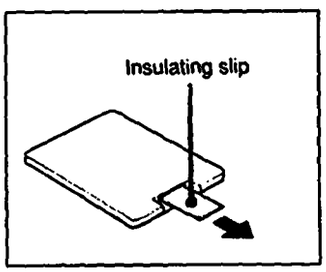
Mini Commander RM-KIT

This Mini Commander has the minimum function buttons for watching the TV.



Before use

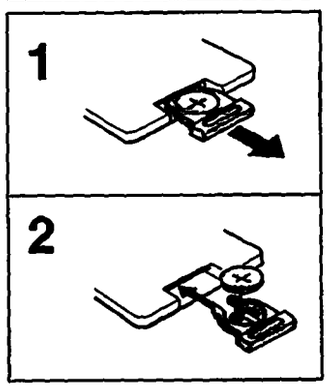
The initial battery is installed at the factory. Remove the transparent *insulating slip before* operation.



How to replace the battery

1 Pull out the battery case.

2 Insert the supplied CR2025 battery with the flat surface (positive side) upward.



Notes on the lithium battery

- Keep the lithium battery out of the reach of children. Should the battery be swallowed, immediately consult a doctor.
- Be sure to observe the correct polarity when installing the battery.
- Do not hold the battery with metallic tweezers, otherwise a short-circuit may occur.
- **Replace the battery with a Sony CR2025 or Duracell DL-2025 lithium battery. Use of another battery may present a risk of fire or explosion.**

WARNING
Battery may explode if mistreated. Do not recharge, disassemble or dispose of it in fire.

Connecting TV Antenna/Cable

You can use either indoor antenna or outdoor antenna to connect to your projector. It is however recommended to use an outdoor antenna for better picture quality.

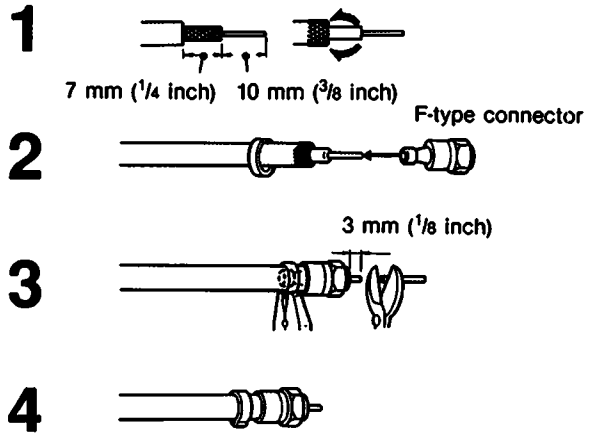
Cable TV reception is only possible by connecting a cable supplied by your local cable company.

To Connect VHF, UHF, or VHF/UHF Combination Antenna* or CATV Cable

1 Check the cable type and prepare the end of the antenna cable using the appropriate connector.

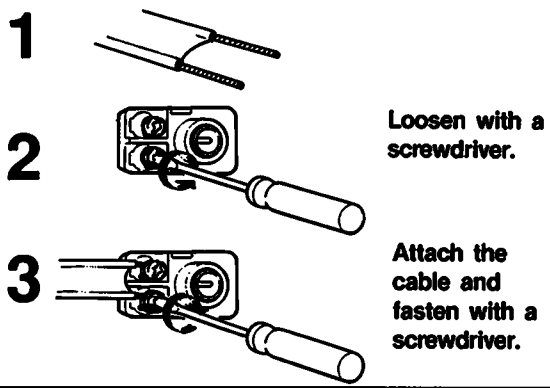
75-ohm coaxial cable (round)

Attach an F-type connector (not supplied).



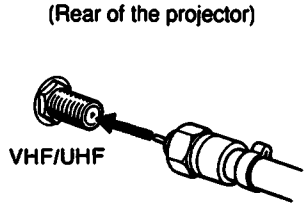
300-ohm twin-lead cable (flat)

Attach the supplied antenna connector.

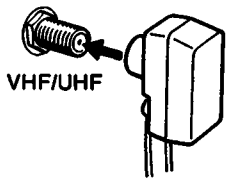


2 Plug the connector into VHF/UHF on the rear of the projector.

75-ohm coaxial cable (round)



300-ohm twin-lead cable (flat)



* Most combination antennas are equipped with a signal splitter. Remove the splitter and attach the appropriate connector.

For a better quality picture, it is recommended to use the optional cable so that the 300-ohm twin-lead cable can be kept at a distance from the projector.

Continued on next page

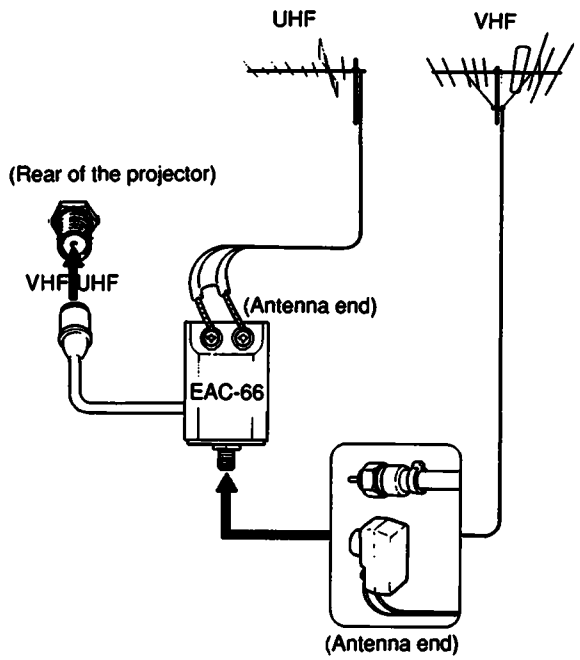
When you connect both VHF and UHF antennas

Use the supplied EAC-66 U/V mixer.

1 **Prepare the VHF antenna end using the appropriate connector.**

2 **Connect the cables to the mixer.**

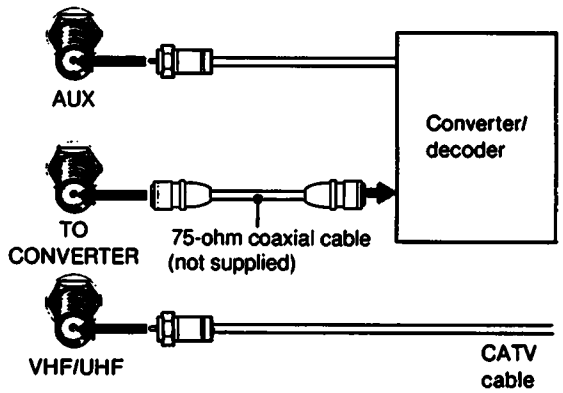
3 **Plug the mixer to VHF/UHF.**



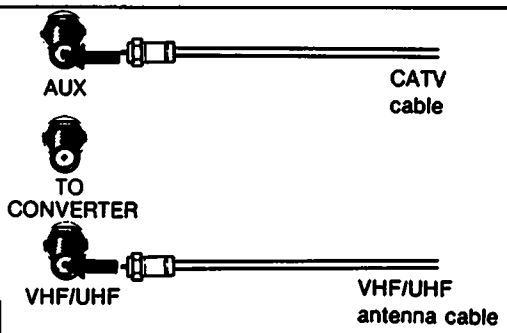
When the U/V mixer is used
Snow and noise may appear in the pictures of the cable TV channels over 37 (W+1).

When you connect a cable with a special converter/decoder* for pay cable TV systems

Pay cable TV systems use scrambled or encoded signals and require a special converter (decoder) in addition to the normal cable connection.



When you connect both VHF/UHF antenna and CATV cables



Note

In this case, do not connect anything to the TO CONVERTER terminal.

* The special converter/decoder will be supplied by the cable company.

Registration Adjustment

When the red, green and blue lines do not converge (the cross is not seen as white), perform the registration adjustment. Should the difficulty persist, contact your Sony dealer.

Follow steps **1** through **6**.

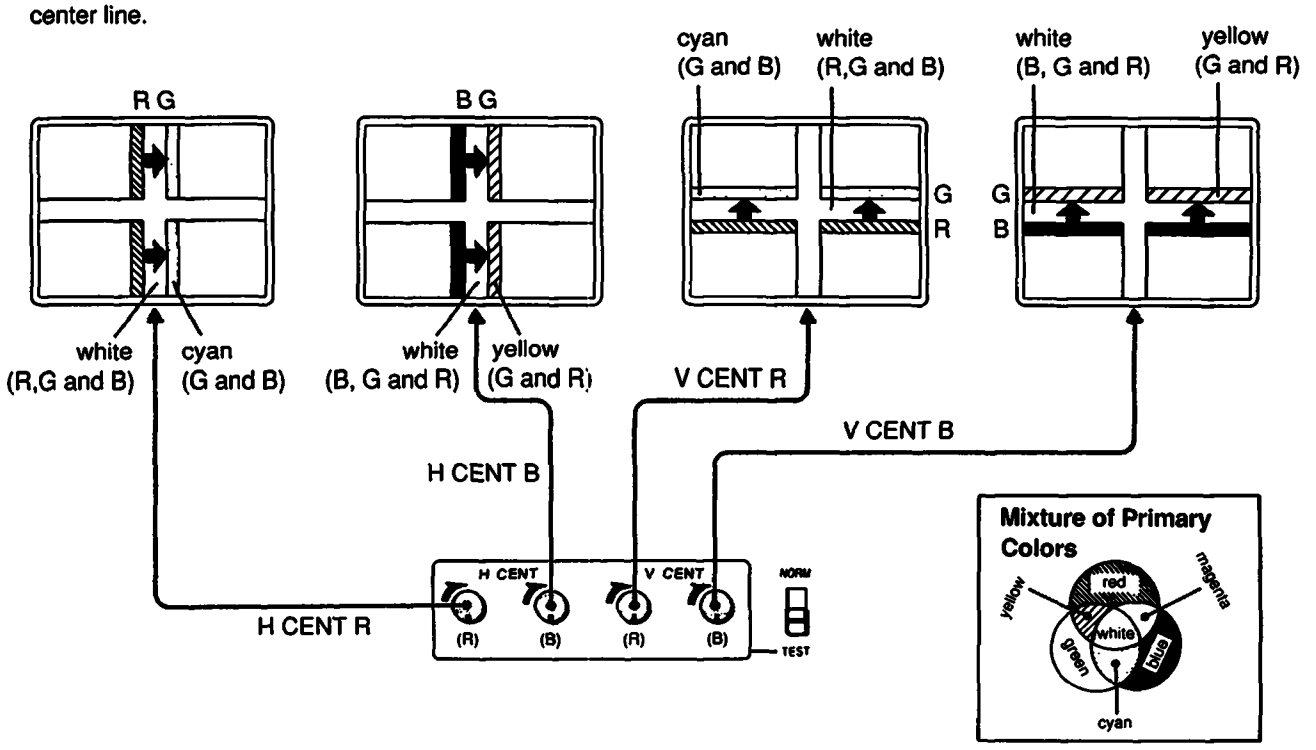
1 Press POWER to turn on the unit.

2 Open the front panel and set the NORM/TEST selector to TEST. A built-in test pattern will be displayed on the screen.

3 Adjust the H CENT (B) and H CENT (R) controls so that the blue and red vertical lines converge with the center line.

4 Adjust the V CENT (B) and V CENT (R) controls so that the blue and red horizontal lines converge with the center line.

(In the illustration below:
R=Red, G=Green, B=Blue)



As you turn the controls clockwise, the lines move in the direction indicated in the illustrations. To move the lines in the opposite direction, turn the controls counterclockwise.

5 Repeat steps **3** and **4** until the cross appears white.

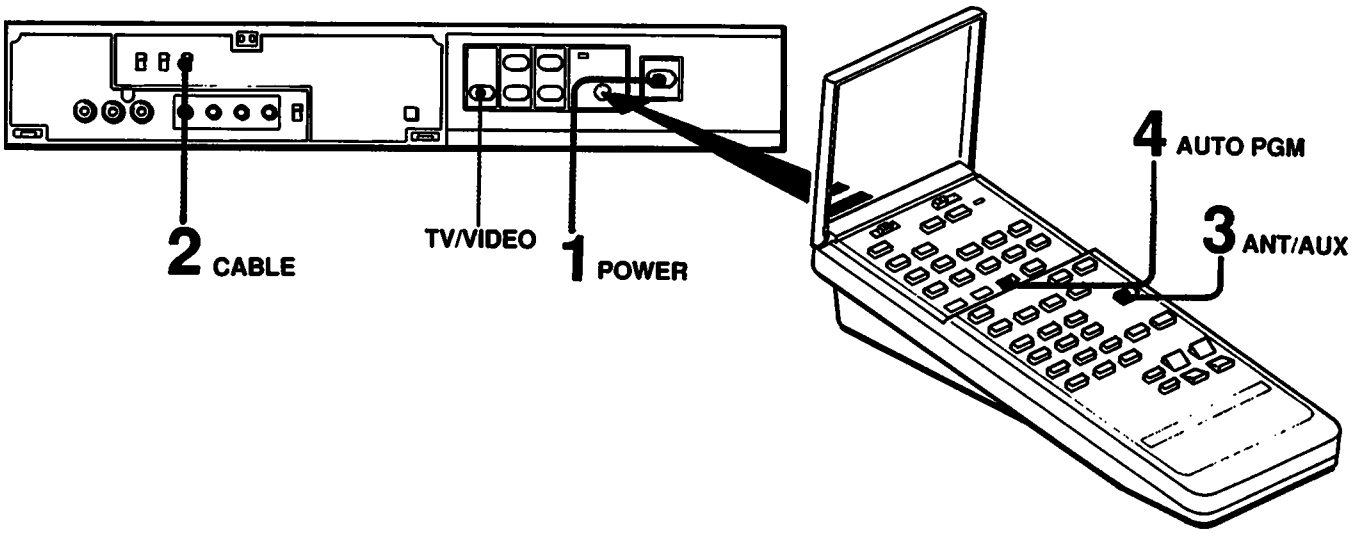
6 After the adjustment is completed, set the NORM/TEST selector to NORM.

Note

When the NORM/TEST selector is set to TEST, no sound will be heard.

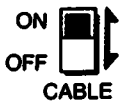
Presetting TV Channels

To Preset All Receivable Channels Automatically

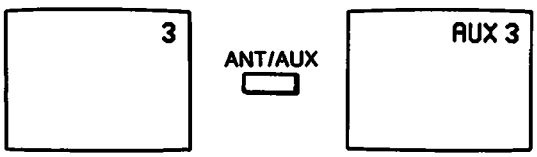


1 **Turn on the projector.**

2 **Set CABLE to the correct position.**



3 **Press ANT/AUX according to the channels to be preset.**



4 **Press AUTO PGM.**

"AUTO PROGRAM" is displayed on the screen and receivable channels (other than the channels already preset) will be preset in numerical sequence. The channels previously preset remain in the unit's memory.
When no more channels can be found, the programming stops and the lowest numbered channel is displayed.

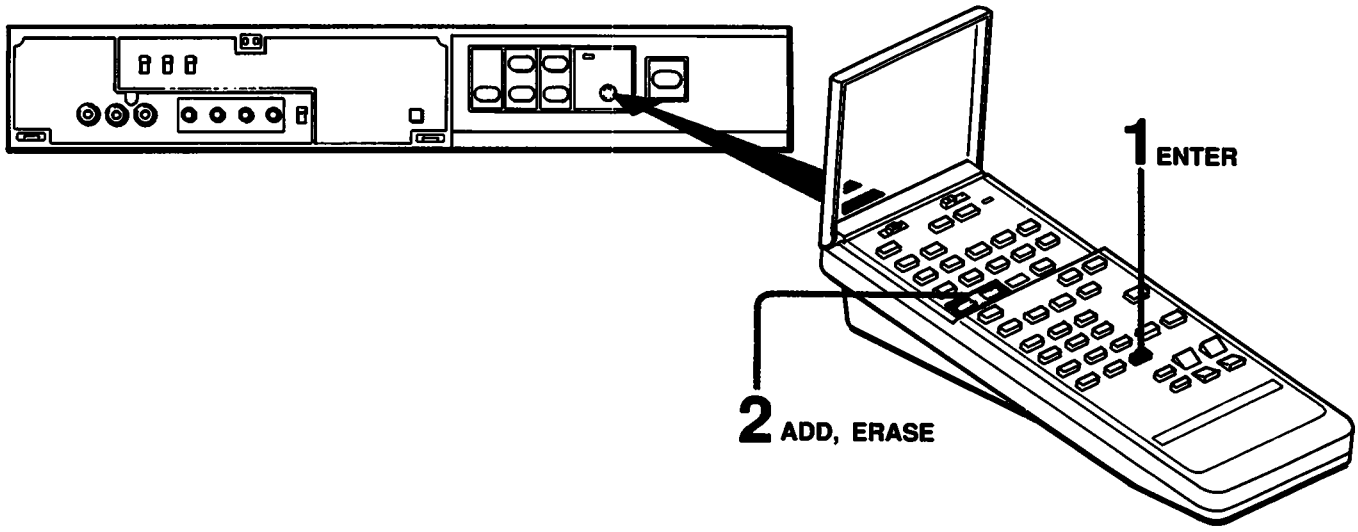
Receivable channels of this projector are:
VHF: 2-13
UHF: 14 - 69
Cable: 1-125

To check preset channels
Press CH +/–.

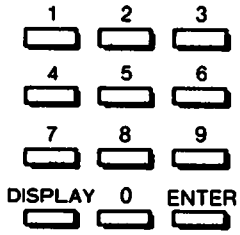
To add the channels that could not be preset with automatic programming because their signal strength was too weak, or to **erase unnecessary channels,** follow the steps in "To preset only the desired channels or to erase unnecessary channels" on the next page.

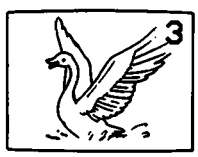
If the "VIDEO 1", "VIDEO 2", or "VIDEO 3" indication is displayed on the screen, press TV or TV/VIDEO so that a channel number appears.

To Preset Only the Desired Channels or to Erase Unnecessary Channels



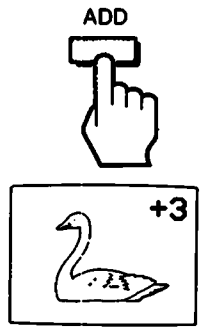
1 **Press the channel number button(s) and then ENTER to select the channel to be added or erased.**





2 **To add channels**

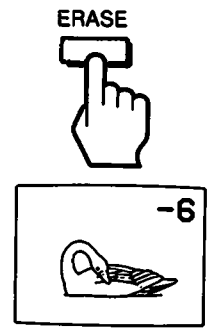
Press ADD.



A "+" appears for a moment. This channel has now been added to the channel scan memory.

To erase channels

Press ERASE.



A "–" appears for a moment. This channel has now been erased from the channel scan memory.

Repeat steps 1 and 2 for other channels to be added or erased.

When a VHF or UHF channel is erased

The cable TV channel with the same number is also erased and vice versa.

Cable TV channel chart*

Cable TV systems use letters or numbers to designate channels. To tune in a channel, refer to this chart.

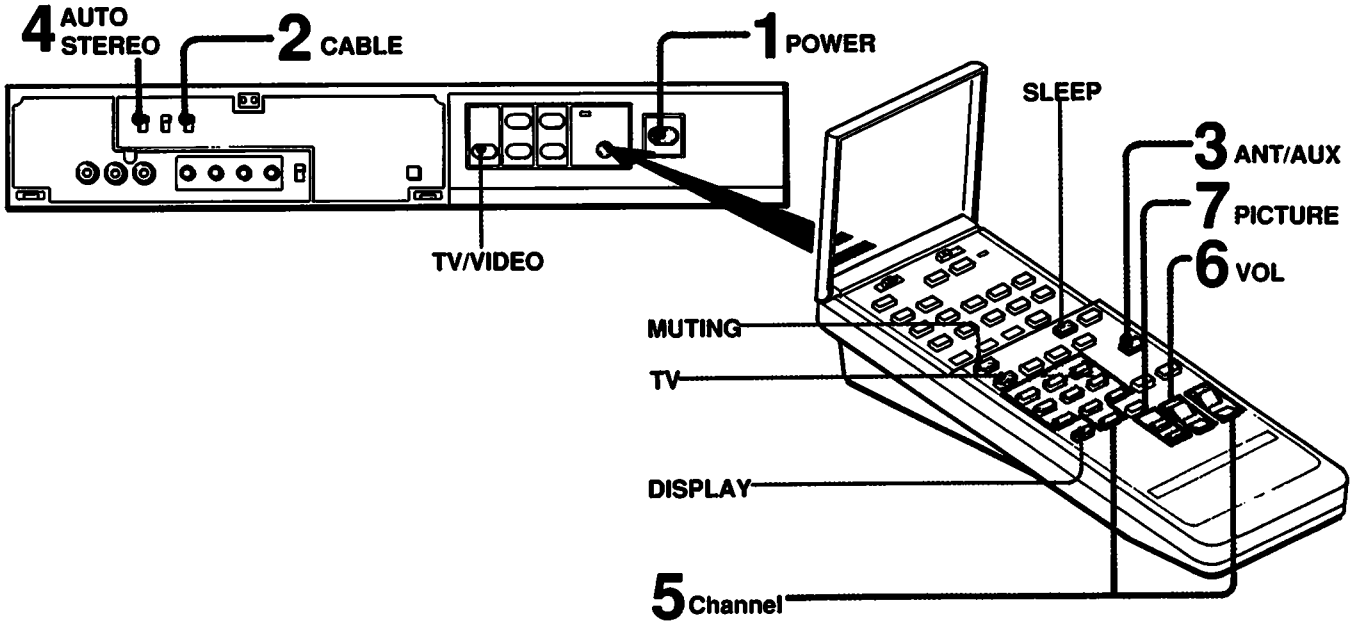
Number on this set	1	5	6	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Corresponding CATV channel	A-8	A-7	A-6	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q

31	32	33	34	35	36	37	38	39	.....	93	94	95	96	97	98	99	100	101	102	.....	123	124	125
R	S	T	U	V	W	W+1	W+2	W+3	.....	W+57	W+58	A-5	A-4	A-3	A-2	A-1	W+59	W+60	W+61	.....	W+82	W+83	W+84

Check with your local cable TV company for more complete information on the available channels.

* The designation of the cable TV channels conforms to the EIA/NCTA recommendation.

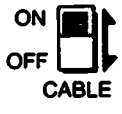
Watching TV Programs



1 **Turn on the projector.**

POWER

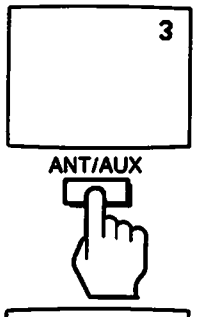
2 **Set CABLE to the appropriate position.**



To watch cable TV channels

To watch VHF or UHF channels

3 **Press ANT/AUX according to the channel to be watched.**



To watch VHF, UHF or regular cable TV channels

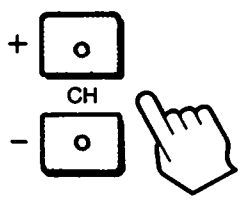
To watch pay cable TV channels

"AUX" position

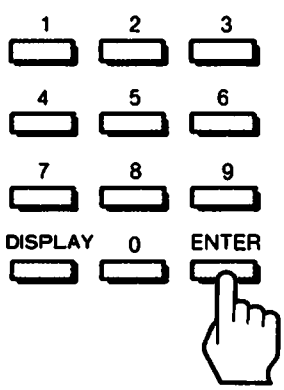
4 Set AUTO STEREO to ON.

5 Select a channel in one of the following two ways:

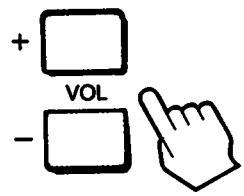
To scan the preset channels in numerical sequence,
press CH +/–.



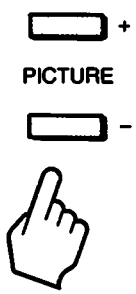
To select a channel directly
Press the channel number button(s) and then ENTER.
For example, to select channel 10, press 1, 0 and ENTER.



6 Press VOL + or – to adjust the volume.



7 Press PICTURE + or – to adjust picture.



To increase picture contrast with vivid color

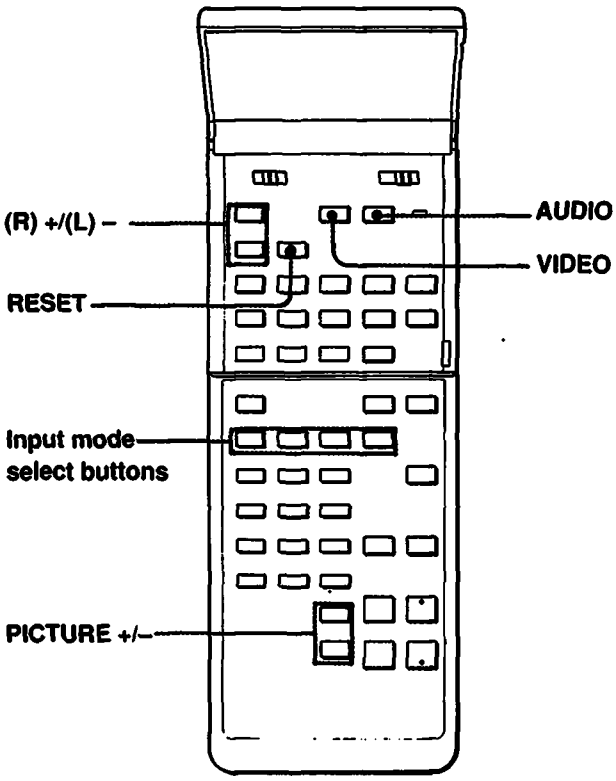
To decrease picture contrast with soft color

If the "VIDEO 1", "VIDEO 2" or "VIDEO 3" indication is displayed on the screen
Press TV or TV/VIDEO so that a channel number appears.

To turn off the unit
Press POWER again.

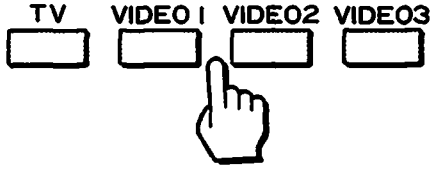
Adjusting the Picture and Sound

You can adjust the picture and sound levels and have the unit store them for each input mode (TV/VIDEO 1/2/3).



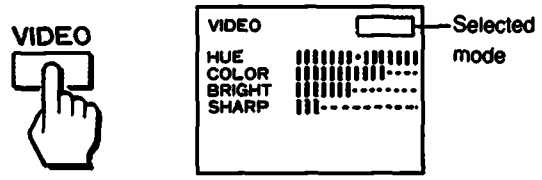
Before adjusting

Select the input mode to be adjusted using TV/VIDEO 1/2/3.

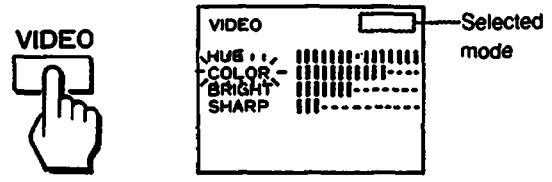


Adjusting the Picture

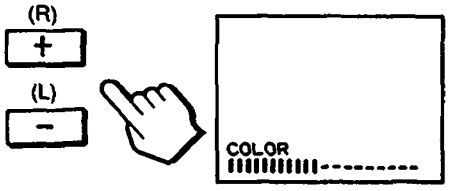
1 Press VIDEO.



2 Press VIDEO repeatedly until the adjusting item blinks.



3 Press (L) or (R) to adjust.

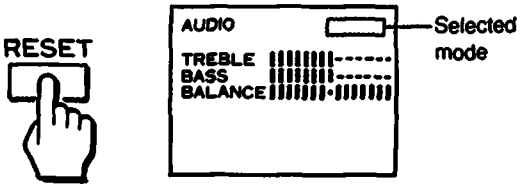


Adjusting item	Pressing – (L) button	Pressing + (R) button
HUE	Skin tones become purplish.	Skin tones become greenish.
COLOR	For less color intensity	For more color intensity
BRIGHT	For less brightness	For more brightness
SHARP	For less sharpness	For more sharpness

The indication will go off after a few seconds.

To reset to the factory preset levels

Press RESET.

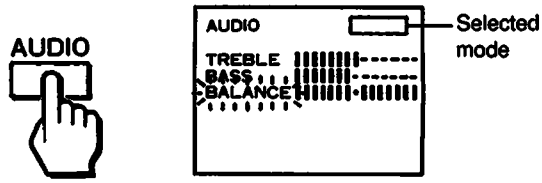


The indication will go off after a few seconds.

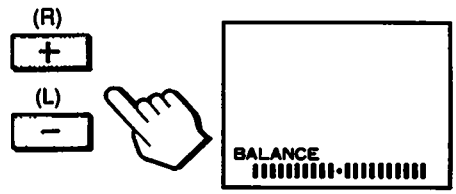
Adjusting the Sound

1 Press AUDIO.

2 Press AUDIO repeatedly until the adjusting item blinks.



3 Press (L) or (R) to adjust.

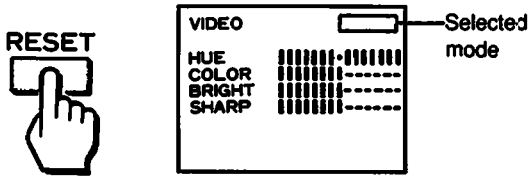


Adjusting item	Pressing – (L) button	Pressing + (R) button
TREBLE	To decrease treble response	To increase treble response
BASS	To decrease bass response	To increase bass response
BALANCE	To emphasize the left speaker's volume	To emphasize the right speaker's volume

The indication will go off after a few seconds.

To reset to the factory preset levels

Press RESET.

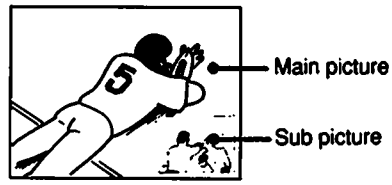


The indication will go off after a few seconds.

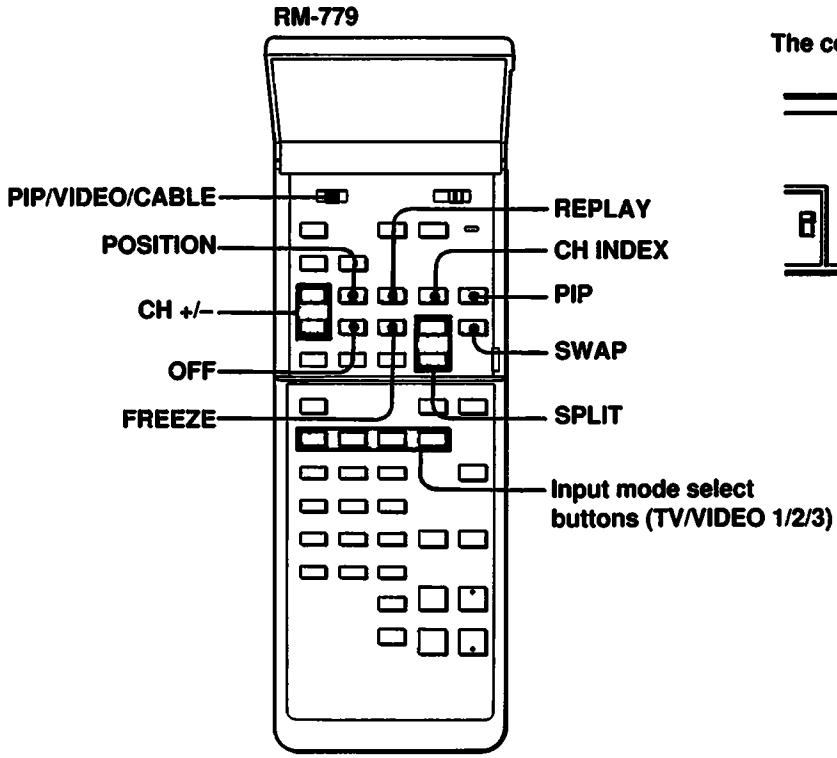
Enjoying the Picture-in-picture Feature

Besides the main picture, you can watch another TV channel or a video source simultaneously as a sub picture.

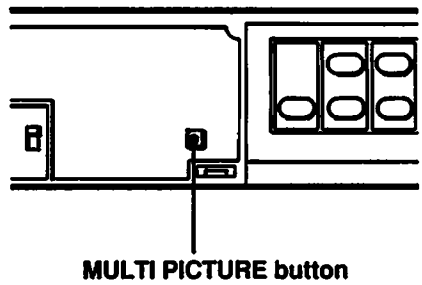
You can enjoy the convenience of the picture-in-picture feature when there are two TV channels you want to watch at the same time or when you want to monitor VCR dubbing while watching TV, etc.



Buttons used for picture-in-picture operations



The control panel on the projector



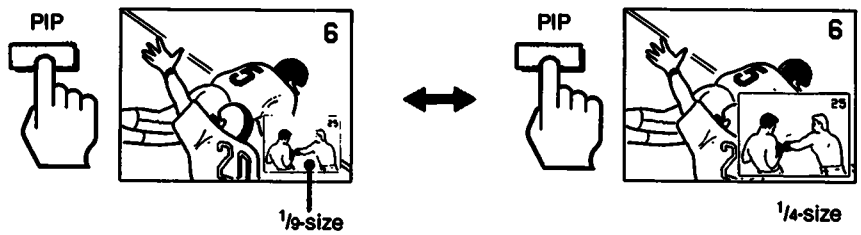
Notes

- The channels being received through the AUX terminal cannot be displayed as a sub picture except as a REPLAY picture (see page 20) or a SPLIT picture (see page 21).
- If the main picture is blocked, picture-in-picture does not function.

To display a sub picture

1 **Set the PIP/VIDEO/CABLE selector to PIP.**

2 **Press PIP.**



The sub picture in the last mode you watched will appear. Each time PIP is pressed, a 1/4-size or 1/9-size sub picture will appear alternately.
Picture-in-picture also functions when the main picture is in the VIDEO mode.

To make the sub picture disappear
Press OFF.

To scan programs of a sub picture
Press CH +/– in the picture-in-picture section.

To change the sub picture from the TV to VIDEO mode (or vice versa)
Press SWAP so that the sub picture becomes the main picture.
Press the input select button (TV/VIDEO 1/2/3) to change the mode.

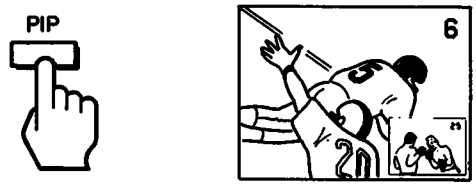
Notes on the sub picture

- The sound of the sub picture cannot be heard.
- In the sub picture, the VIDEO LABEL and CHANNEL CAPTION will not appear even if you have set them.
- If a sub picture is blocked, the "B" indication will appear on the sub screen.

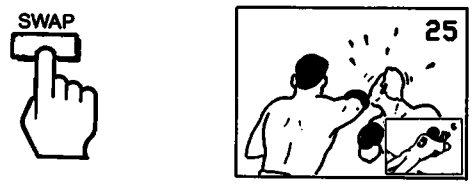
To swap the main and the sub pictures

1 **Set the PIP/VIDEO/CABLE selector to PIP.**

2 **Press PIP to display a sub picture.**



3 **Press SWAP.**

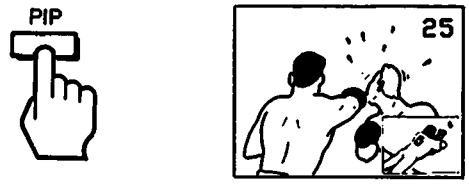


Continued on next page

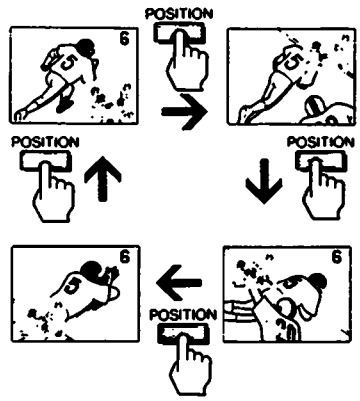
To change the position of the sub picture

1 **Set the PIP/VIDEO/CABLE selector to PIP.**

2 **Press PIP to display a sub picture.**



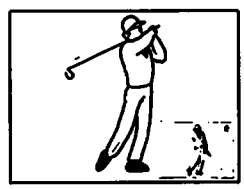
3 **Press POSITION.**
Each time POSITION is pressed, the sub picture will move as illustrated.



To replay the main picture displayed 3 seconds before in the sub picture

1 **Set the PIP/VIDEO/CABLE selector to PIP.**

2 **Press REPLAY.**



To make the replay picture disappear, press OFF.

Note

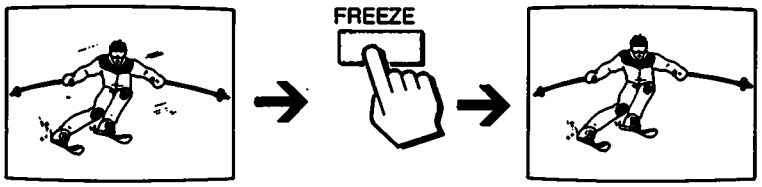
The replay picture is always displayed in 1/9 size.

To freeze a TV picture

1 **Set the PIP/VIDEO/CABLE selector to PIP.**

2 **Press FREEZE.**

The TV picture will be frozen.
Freezing the picture is convenient when you want to write down a recipe of a cooking program or a displayed toll free number, etc.



Note

Since the broadcast continues normally while the still picture is on the screen, you will miss a part of the program.

To restore the normal picture, press OFF.

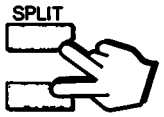
To split the screen with the main and the sub pictures

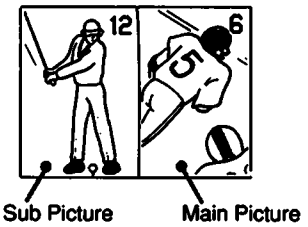
1 **Set the PIP/VIDEO/CABLE selector to PIP.**

2 **Press SPLIT.**

Be sure to press these two buttons simultaneously.

To make the sub picture disappear
Press OFF.





Notes

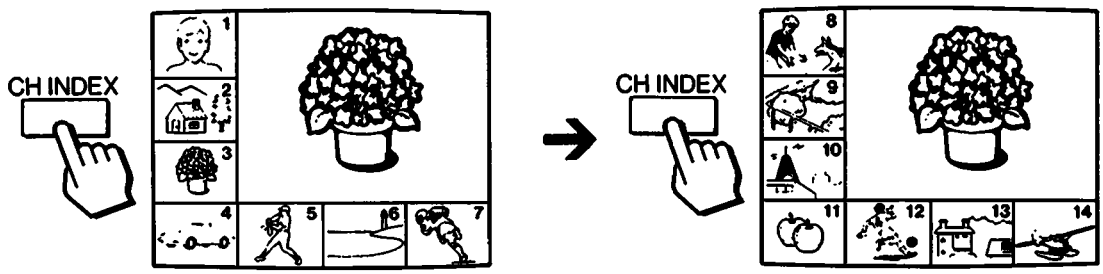
- Only the sound of the main picture (right screen) is heard.
- When using the split-screen feature, vertical lines may appear to you to be elongated.
- To swap the main and the sub pictures in the split screen, press SWAP.

Continued on next page

To display seven different sub pictures simultaneously

1 **Set the PIP/VIDEO/CABLE selector to PIP.**

2 **Press CH INDEX.**



Programs of seven TV channels appear in numerical sequence as sub pictures.
Each time CH INDEX is pressed, the next seven channels will appear.

To cancel CH INDEX, press OFF.

Note

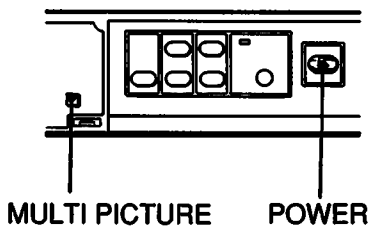
When using the CH INDEX function, part of the main picture is hidden by the sub picture.

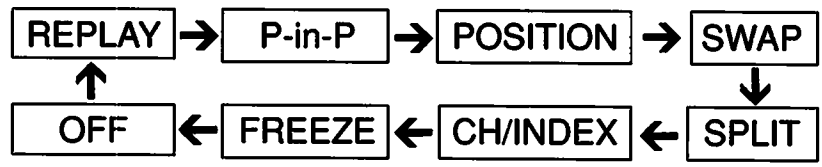
To demonstrate all the picture-in-picture features one by one

1 **Set the PIP/VIDEO/CABLE selector to PIP.**

2 **Press MULTI PICTURE on the projector.**

The features will be demonstrated as follows each time you press MULTI PICTURE.



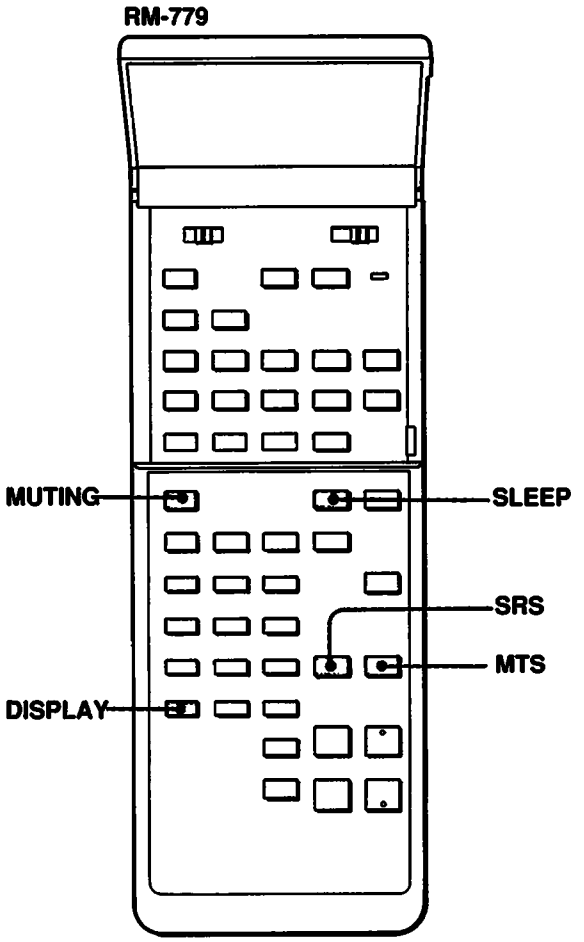


To demonstrate all the picture-in-picture features automatically

Press POWER while pressing MULTI PICTURE.

To cancel the demonstration, press OFF.

Enjoying Convenient Features



Muting the sound

Press MUTING.
The "MUTING" indication will appear on the screen.
To restore the sound, press MUTING again or VOL +.

Keeping the channel displayed

Press DISPLAY.
To make the channel display disappear, press DISPLAY again.

Using the SLEEP timer

Press SLEEP.
The TV will be turned off automatically after about 1 hour regardless of the clock setting.
The green "SLEEP ON" indication will appear on the screen for three seconds when the SLEEP button is pressed. And the red "SLEEP" indication will appear one minute before the unit is turned off automatically. To cancel the SLEEP timer, press SLEEP again so that the "SLEEP OFF" indication appears, or turn off the unit.

For more natural sound reproduction

Press SRS (sound retrieval system).
The "(●) SRS" indication will appear on the screen.
To cancel SRS, press SRS to select SRS OFF.

Each time **SRS** is pressed, SRS (STEREO), SRS (MONO) or SRS OFF is selected in sequence. In the SRS (MONO) mode the natural sound of a monaural source can be also enhanced.

Receiving a Multichannel TV Sound program

Each time **MTS** is pressed, MAIN, SAP (Second Audio Program), or MONO is selected in sequence.
To listen to stereo sound, select the MAIN mode so that the on-screen MAIN indication appears. The STEREO lamp on the TV lights up whenever a stereo broadcast is received.
There may be cases of stereo broadcasts where excessive noise will be heard due to a weak incoming signal. You may be able to eliminate this noise by selecting the MONO mode.

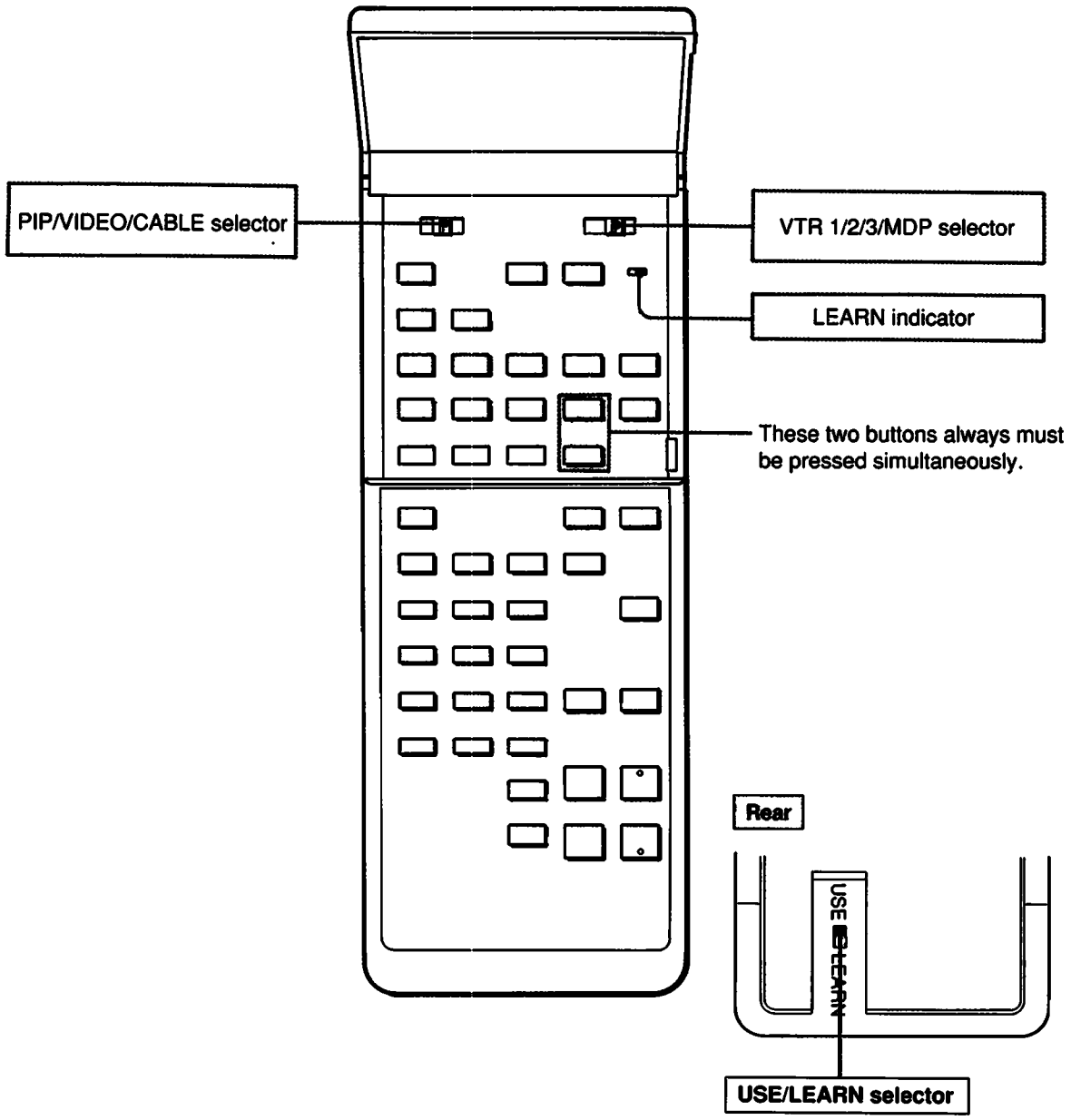
Using the Programmable Remote Commander

The supplied RM-779 Remote Commander allows you to operate other Sony video equipment with infrared remote control detector. Furthermore, it can "read" and "store" the functions of another Remote Commanders made by Sony and other manufacturers which use an infrared beam. Thanks to this "learning" ability, you can operate your home audio and video equipment with only one Remote Commander.

Parts Used for Learning Function

Programmable area

The buttons which are capable of learning functions are shaded in ▭ .

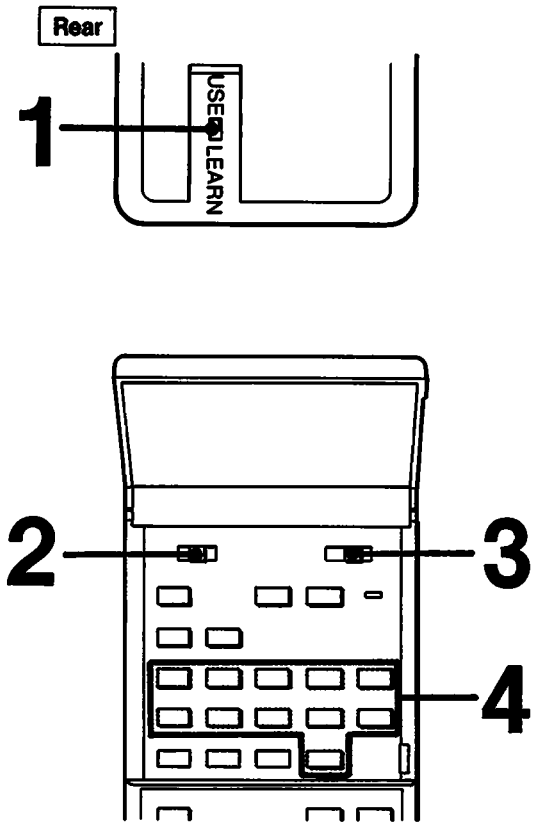


Normally, set to USE.
When having the Remote Commander memorize the functions, set to LEARN.

Continued on next page

Operating Sony Video Equipment

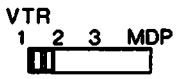
The supplied Remote Commander allows you to operate Sony video cassette recorders (including Beta, 8 mm, VHS), and video disc players (including multi disc player). For operating video equipment manufactured by Sony, "learning" is unnecessary.



1 **Set the USE/LEARN selector on the rear to USE.**

2 **Set the PIP/VIDEO/CABLE selector to VIDEO.**

3 **Set the VTR 1/2/3MDP selector according to the desired video equipment.**



Beta, ED Beta VCR	VTR 1
8 mm VCR	VTR 2
VHS VCR	VTR 3
Video disc player	MDP

4 **Use the buttons in this area to operate video equipment.**

Operating a Video Cassette Recorder

To record	Press ●.
To play	Press ▶.
To stop	Press ■.
To fast forward	Press ▶▶.
To rewind the tape	Press ◀◀.
To freeze a picture	Press II. To resume normal playback, press again.
To search the picture forward and backward	Keep pressing ▶▶ or ◀◀ during playback. To resume normal playback, release the button.

Operating a Video Disc Player

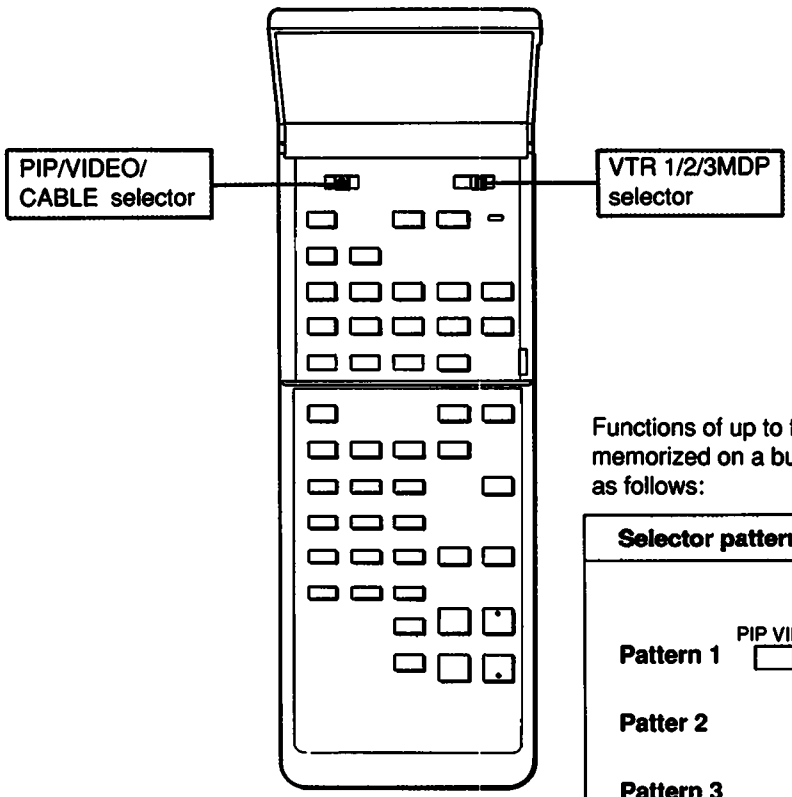
To play	Press ▶.
To stop	Press ■.
To freeze a picture	Press II. To resume normal playback, press again. * This function is effective only for CAV (standard-play disc). With CLV (extended-play disc), the unit will go into the standby mode if II is pressed.
To search the picture forward and backward	Keep pressing ▶▶ or ◀◀ during playback. To resume normal playback, release the button.

- If the equipment does not have a certain function, the corresponding button on this Remote Commander is not effective.

Operating Audio and Video Equipment of Other Manufacturers, or Sony Audio Equipment

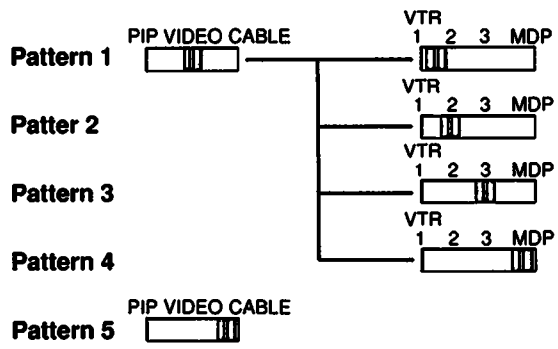
Within the programmable area, any button can memorize the function of the Remote Commander supplied with Sony audio and ohter manufacturer's equipment. Functions of up to five different equipment can be memorized per button.

Programmable area



Functions of up to five different equipment can be memorized on a button by setting the selectors as follows:

Selector pattern



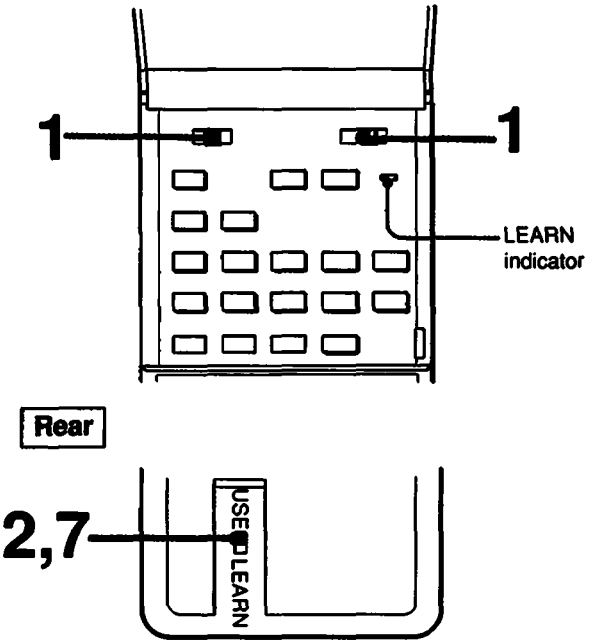
For patterns 1 – 4, setting both selectors is necessary.

For your convenience:

- Set the selector to the position which is not used for your Sony video equipment.
- Memorize the new function on the button which has the same kind of function.
  (e.g. Stop function → ■ button,
  playback function → ▶ button.)

Continued on next page

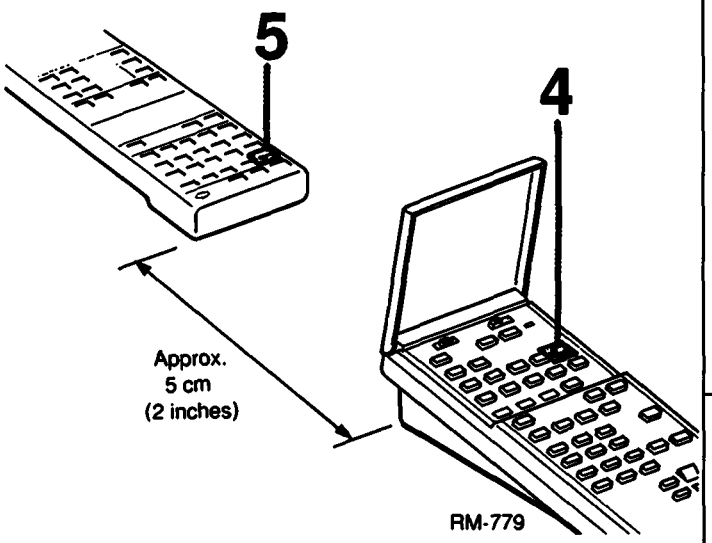
How to Use the Learning Function



1 **Set the PIP/VIDEO/CABLE selector and VTR 1/2/3/MDP selector to the appropriate position.**

2 **Set the USE/LEARN selector to LEARN.**

3 **Position this Remote Commander and the other Remote Commander head to head, approximately 5 cm (2 inches) apart.**



4 **Momentarily press the button of this Remote Commander on which a function is to be memorized.**
The LEARN indicator lights up.
(Beep.)
Now it's ready for learning.

Note

If you press a button which is not programmable, the Remote Commander will beep 8 times repeatedly.

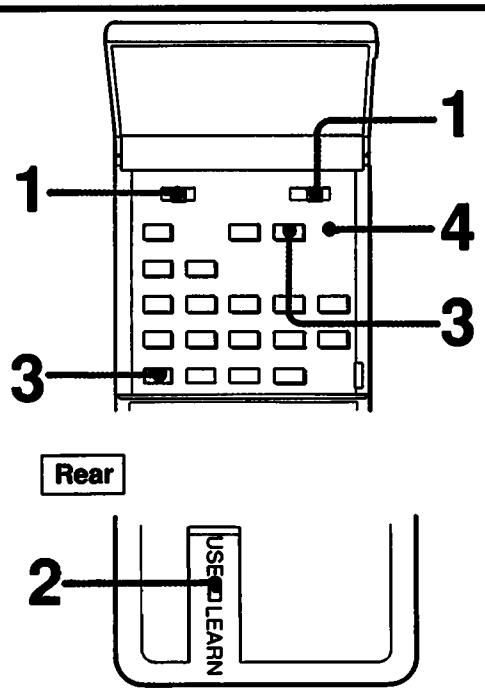
5 **Keep pressing the function button of the other Remote Commander until the LEARN indicator goes out.** A long beep is also heard which confirms that the learning was successfully completed.

6 **To continue learning other functions, repeat steps 4 and 5.**

7 **After learning is finished, set the USE/LEARN selector to USE.**

For accurate learning
Do not move the Remote Commanders during the learning process.

Clearing Memorized Functions – Clearing memorized functions under a particular selector pattern



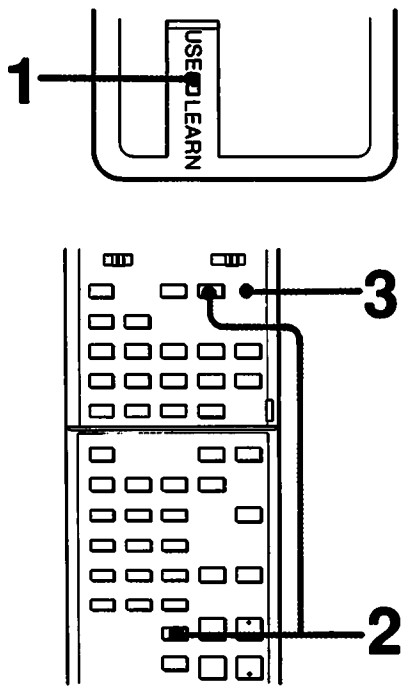
1 **Set the PIP/VIDEO/CABLE selector and VTR 1/2/3/MDP selector to the pattern for the functions you wish to clear.**

2 **Set the USE/LEARN selector on the rear to LEARN.**

3 **Press AUDIO.**
While pressing the AUDIO button, keep pressing the ERASE button.

4 **The LEARN indicator lights up and a long beep is also heard.**
Now all the memorized functions under this selector pattern setting are cleared.

Clearing All the Memorized Functions



1 **Set the USE/LEARN selector to LEARN.**

2 **Press AUDIO.**
While pressing the AUDIO button, keep pressing the PICTURE +.

3 **The LEARN indicator lights up and a long beep is also heard.**
Now all the memorized functions under all selector patterns are cleared.

Note

If the clearing function did not work properly, the Remote Commander will beep repeatedly. Try again from step 2.

Continued on next page

Note

Even if the memorized functions are cleared, the buttons maintain their factory set memory.

Caution

When replacing the batteries, do it within approximately 30 minutes. Otherwise, the memorized functions may be erased.

Notes

- The Remote Commander beeps repeatedly if there is inappropriate operation. Try again from step 4.
- Be sure to confirm that the functions have been memorized as a few commanders of other manufacturers are not storable on this Remote Commander.
- Do not use the learning function for equipment other than video and audio.
- When operating equipment with learned functions, the selectors should be set to the same position as they were when the functions were memorized.
- When a new function is assigned to a button, the previous function is cleared automatically.
- When the memories are full, the LEARN indicator lights steadily if you try to memorize a new function. In such a case, set the USE/LEARN selector to USE to turn the indicator off, then clear the unnecessary functions (see page 29).

The learning function will not work in the following cases:

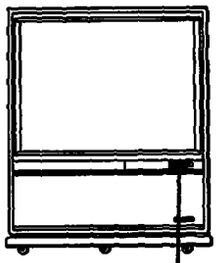
- There is a fluorescent lamp or equipment which emits infrared energy.
  → Move the Remote Commanders away from such infrared sources.
- The batteries are exhausted.
  → Replace all the batteries with new ones.
- There is an obstacle between the Remote Commanders, or the Remote Commanders are not positioned head to head and exactly aligned.
  → Position the Remote Commanders properly.

Application with Optional Equipment

This unit is equipped with various input/output jacks and terminals for your desired equipment to be connected.

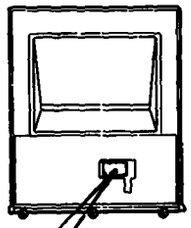
For further details, refer to the page number next to each item.

Front



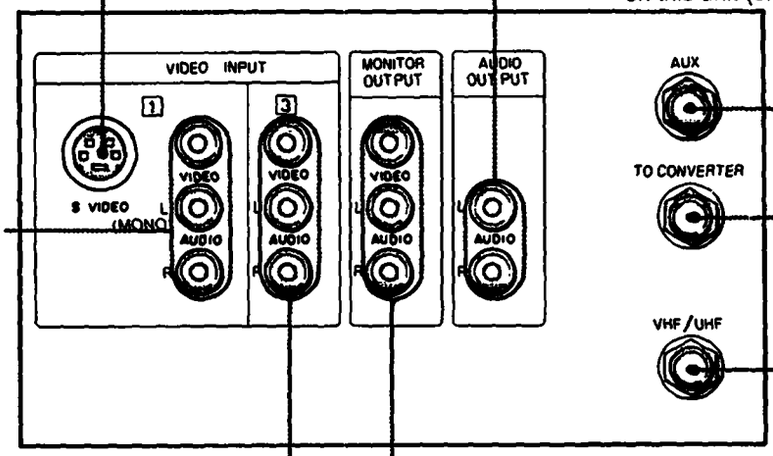
VIDEO 2 IN (input) jacks (phono type) ⑬
Connect to a VCR or microcomputer.

Rear



AUDIO OUTPUT jacks (phono type) ⑮
Connect to the audio input jacks of an audio equipment. Either the audio signal of the TV or VCR selected by the TV/VIDEO button is supplied.
The volume of the equipment connected to these jacks can be adjusted by VOLUME (or VOL) buttons on this unit (or Remote Commander).

VIDEO 1 S VIDEO jack
(4-pin mini DIN type) ⑫
Connect to a VCR equipped with the S video output jack. When this jack is connected, even if the "VIDEO" jack (phono type) of the VIDEO 1 INPUT is connected, the picture to be monitored is switched automatically to the signal from this jack.



VIDEO 1 INPUT jacks
(phono type) ⑫ ⑬
Connect to a VCR*, video disc player, etc.

AUX (auxiliary) terminal
(F type) ⑩

TO CONVERTER terminal
(F type) ⑩

VHF/UHF terminal
(F type) ⑨ ⑩

VIDEO 3 INPUT jacks (phono type) ⑭
Connect to a VCR, video disc player or audio equipment, etc.

MONITOR OUTPUT jacks
(phono type) ⑭
Connect to a VCR or color monitor. Either the TV or VCR signal selected by the TV/VIDEO button or the input mode select buttons is supplied.

* You will achieve better picture and sound quality by connecting through VIDEO INPUT than by connecting the VCR only to the antenna terminals.

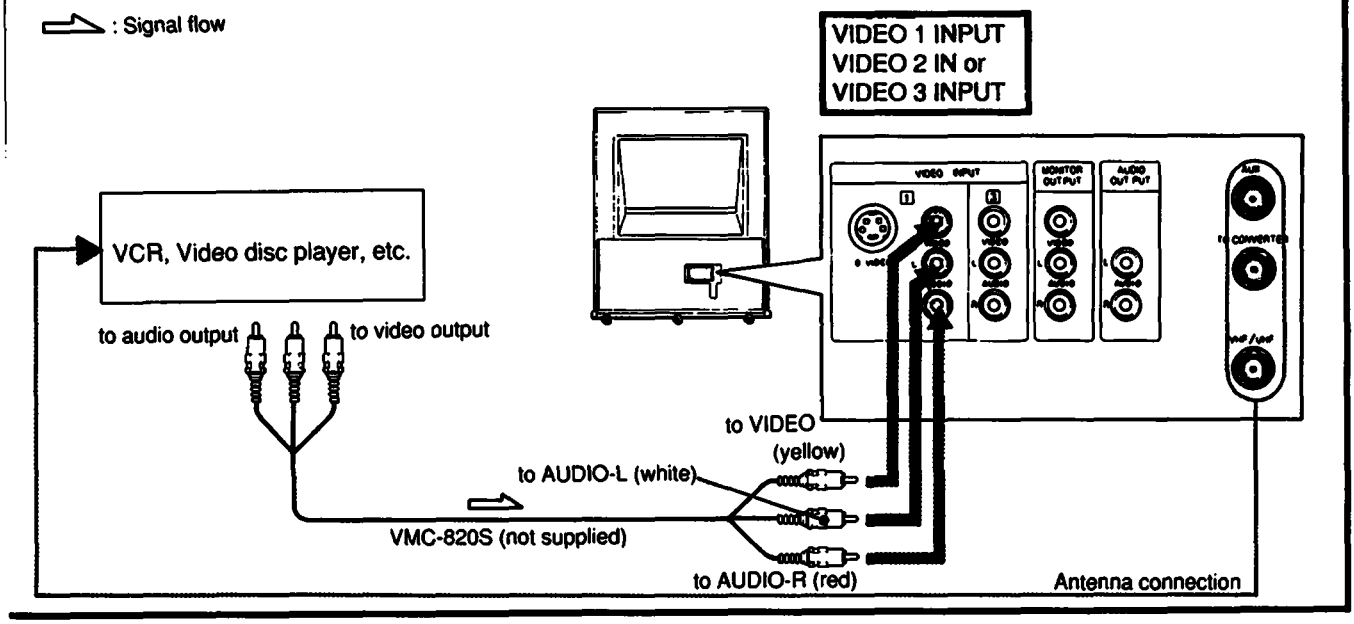
Notes on connection

- Before connecting, make sure to turn off the power of all equipment.
- The plugs should be fully inserted into the jacks. A loose connection may cause hum and noise.
- Match the color when connecting the plugs to the jacks.

VCR Connection

Move the VCR away from the projector, if the dispaly or sound is distorted.

Connecting VCRs/Video Disc Players without the S Video Output Jack

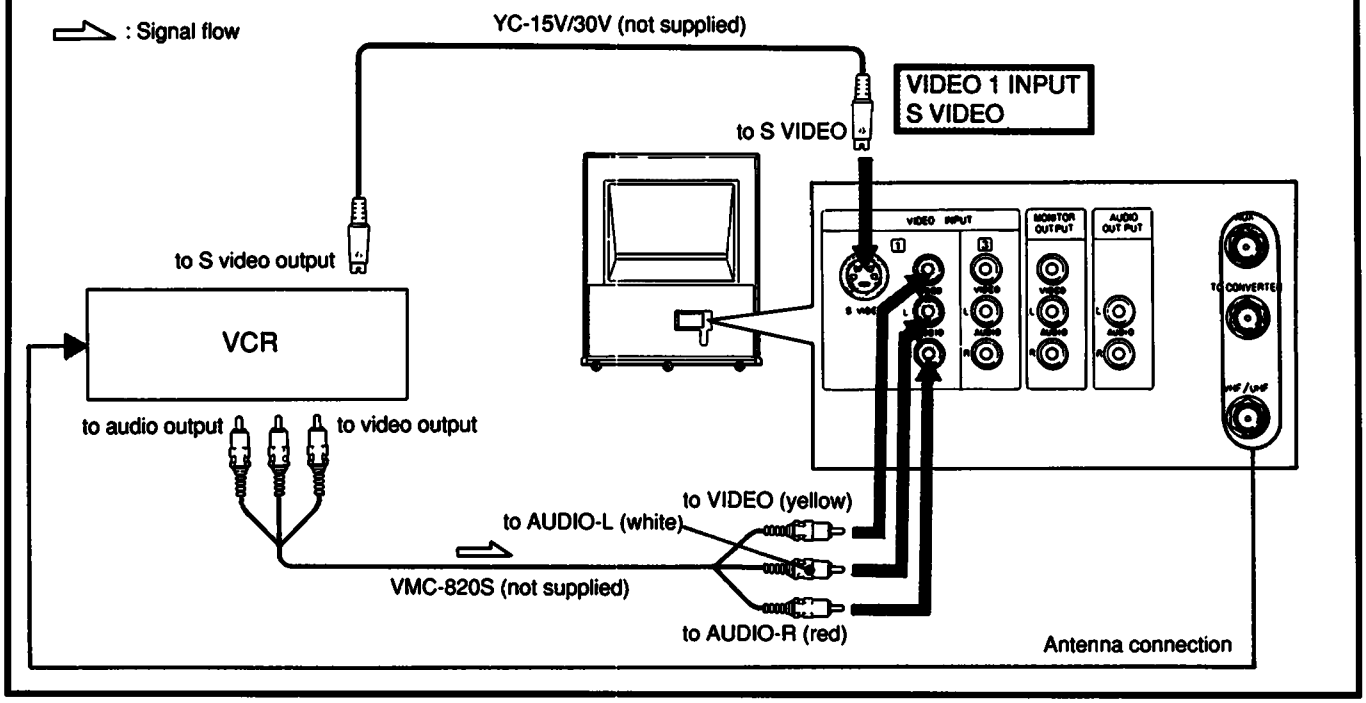


With this connection, you will be able to...

- Play video tapes
- Record TV programs
- Record a TV program while watching another

Caution
Television programs, films, video tapes and other materials may be copyrighted. Unauthorized recording of such material may be contrary to the provisions of the copyright laws.

Connecting VCRs Equipped with the S Video Output Jack



With this connection, you will be able to...

- Play video tapes
- Record TV programs
- Record a TV program while watching another

Note

In order to display a video signal in a sub picture of the picture-in-picture feature whether or not it is equipped with an S VIDEO OUTPUT jack, it is necessary to connect input signals through the VIDEO jack of the VIDEO INPUT 1 jacks as well.

About S Video Input

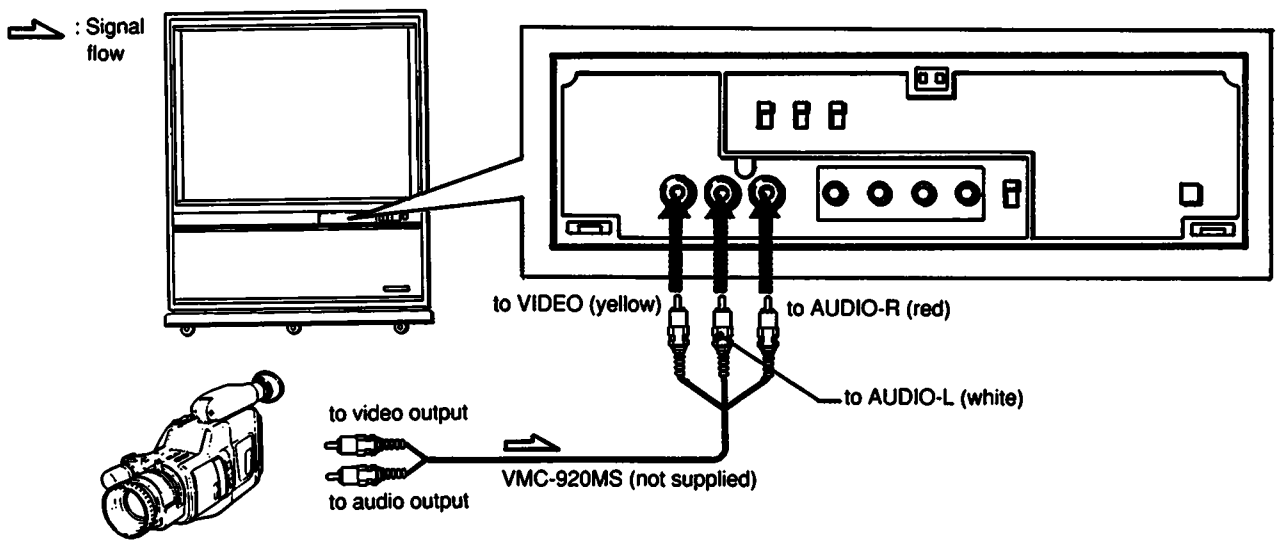
Video input and output signals may be separated inito Y (luminance or brightness) and C (chroma or color) signals. Usually these two signals are combined in a VCR and sent as one signal to a projector. Separation of the Y and C signals prevents them from interfering with one another, thereby improving picture (especially in color) quality. This unit is equipped with an S video input jack through which these separated signals can be input directly.

Continued on next page

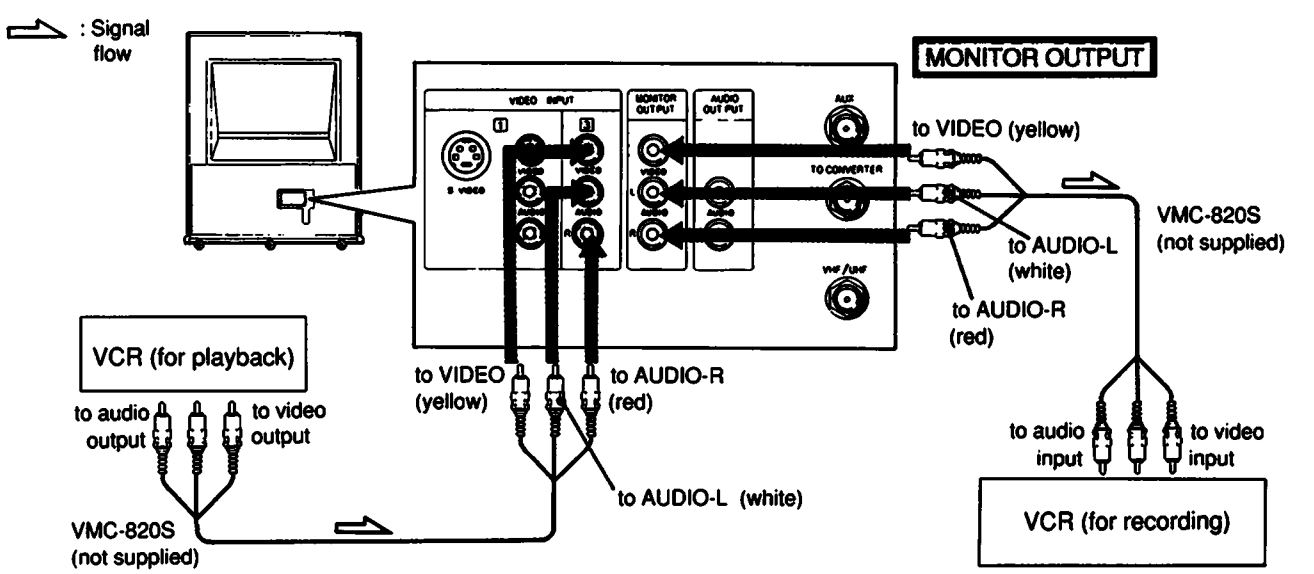
Connecting Camcorders

For playing back recorded tapes

VIDEO 2 IN



Connecting Two VCRs for Tape Editing



Operation

1. Press the desired mode select button or press the TV/VIDEO button so that the desired video source display appears. The VIDEO lamp will light up.
2. Set the playback VCR to the playback mode and set the recording VCR to the recording mode.

To edit the tape, connect the playback VCR to the VIDEO 2 or VIDEO 3 INPUT jacks.

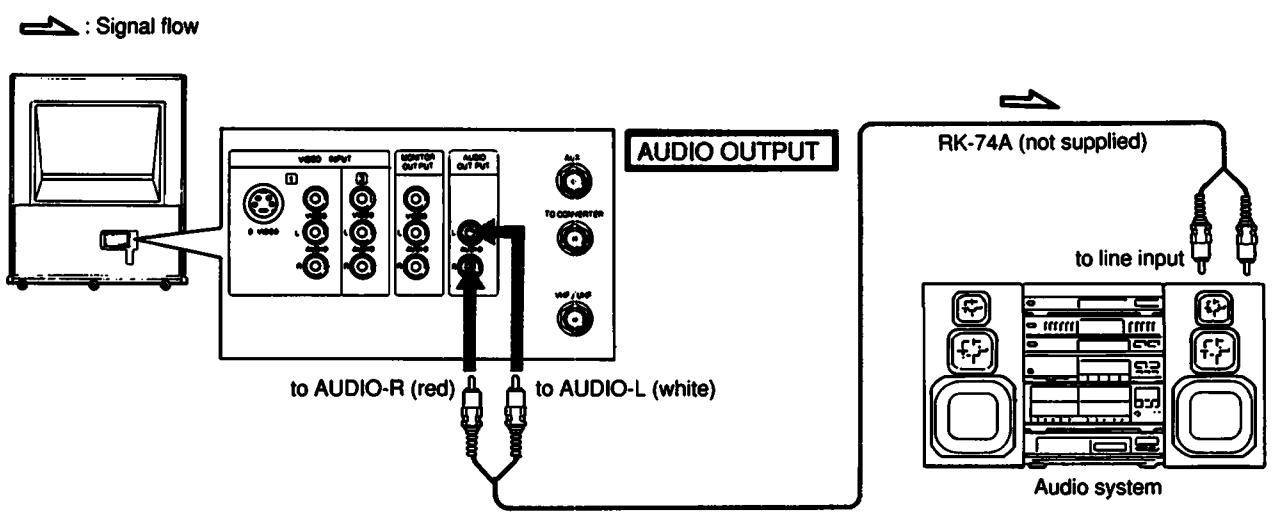
Every time you press the TV/VIDEO button, the display will change as follows:

VIDEO 1→VIDEO 2→VIDEO 3→TV channel

The channel number buttons on the Remote Commander or the CHANNEL scan buttons will not function while the VIDEO lamp is lit.

Audio System Connection

To Monitor TV Sound with a Stereo System

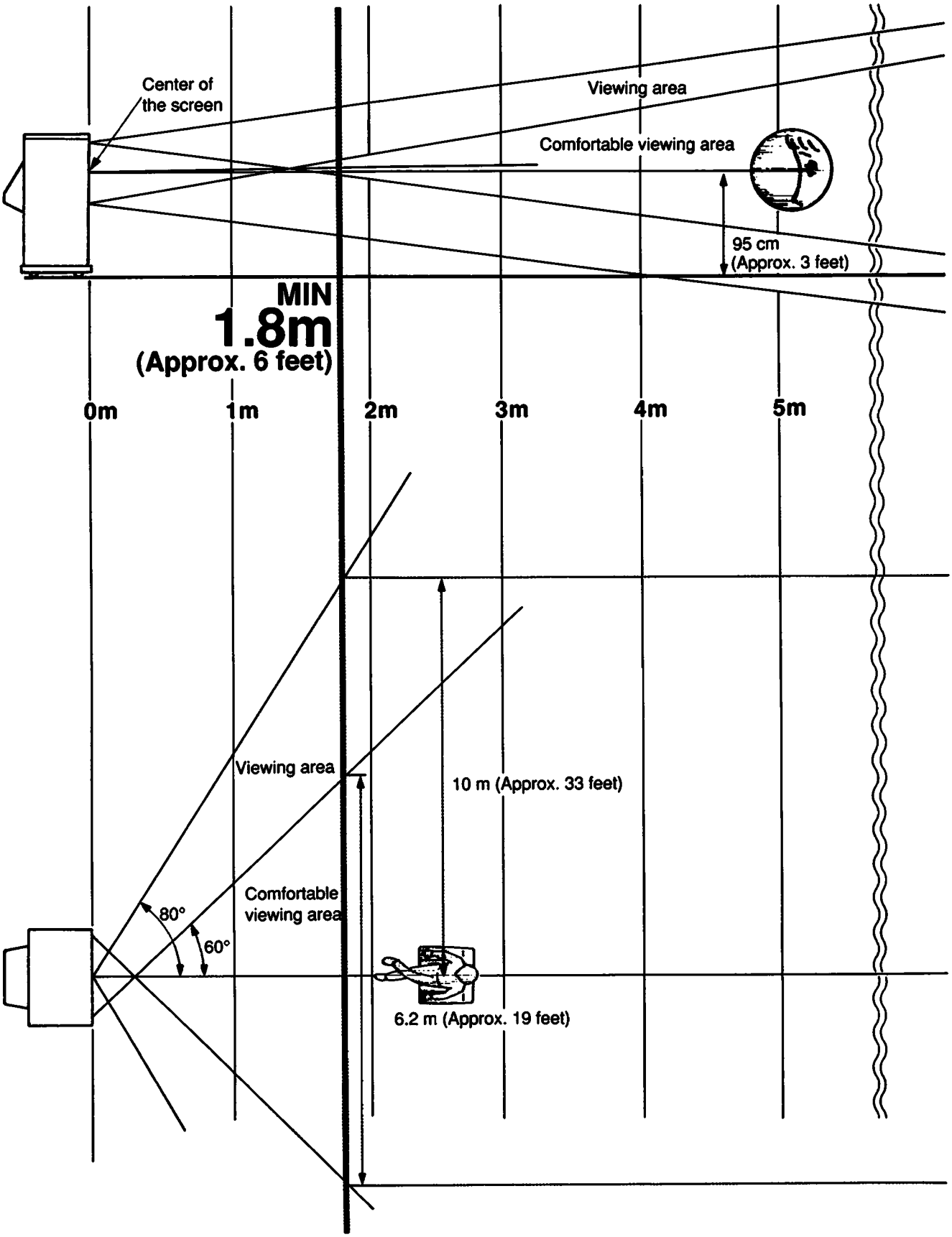


With this connection, you will be able to adjust sound volume from the stereo speakers with the volume buttons on the projector or Remote Commander.
To monitor TV sound only from a stereo system, set the SPEAKER selector on the front panel to OFF.
When the SPEAKER selector is set to ON, adjust the volume from the speakers with the stereo amplifier.

Note

When the NORM/TEST selector of the projector is set to TEST, the AUDIO OUTPUT jacks do not output the TV sound.

Notice on Audience Area



Specifications

Structure	Screen and projector, rear projection type
Projection system	3-picture tubes, 3 lenses, horizontal in-line system
Picture tube	5.5 inch high-brightness monochrome tubes, with optical coupling and cooling system
Projection lenses	High performance, large-diameter hybrid lens F 1.0
Screen material	Acrylic plastic, Fresnel, lenticular type
Resolution	700 lines
Optimum seating arrangement	Within approx. 80 degrees from center
Projected picture size (measured diagonally)	46 inches
Screen brightness	450 foot-Lamberts
Television system	American TV standards
Channel coverage	VHF: 2–13 UHF: 14–69 CATV: 1–125
Antenna	75-ohm external antenna terminal for VHF/UHF/CATV
Inputs	VIDEO 1, 2, 3 INPUT (phono jacks) Video: 1 Vp-p, 75 ohms unbalanced, sync negative Audio: 460 mVrms (100% modulation, 47 kilohms) VIDEO 1 S VIDEO INPUT (4-pin mini DIN) Y: 1 Vp-p, 75 ohms unbalanced, sync negative C: 0.286 Vp-p (Burst signal), 75 ohms 75-ohm external antenna terminal for VHF/UHF/CATV AUX 75-ohm auxiliary antenna terminal
Outputs	MONITOR OUTPUT (phono jacks) Video: 1 Vp-p, 75 ohms unbalanced, sync negative Audio: 460 mVrms (100% modulation, 1 kilohm) AUDIO OUTPUT (phono jacks) 460 mVrms (variable) (100% modulation, 1 kilohm) TO CONVERTER terminal
Speaker	Two-way coaxial speaker system Woofer 20 cm (8 inches) dia. Tweeter 7.6 cm (3 inches) dia.

Power requirements	120 V AC, 60 Hz
Power consumption	290 W (max.), 175 W (ave.), 3 W (in standby condition)

	KPR-46CX25	KPR-46EX25
Dimensions	1172 × 1318 × 748 mm (w/h/d) (46 1/4 × 52 × 29 1/2 inches)	1054 × 1307 × 744 mm (w/h/d) (41 1/2 × 51 1/2 × 29 3/8 inches)
Weight	122 kg (269 lb.)	114 kg (252 lb.)

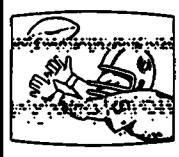
Accessories supplied	Remote Commander RM-779 (1) with 2 size AA (R6) batteries Mini Commandar RM-KIT (1) with 1 lithium battery CR2025 Antenna connector (1)
Optional accessory	U/V mixer EAC-66 Connecting cable VMC-810/820S YC-15V/30V

Design and specifications are subject to change without notice.

Troubleshooting

;turbances in picture and sound can often be eliminated checking the symptoms and following the suggestions ed below.

SYMPTOM	CHECK AND ADJUST
Poor or no picture (screen not lit), good sound	• Adjust PICTURE. • Adjust BRIGHT. • Check antenna/cable connections. • Perform the registration adjustment (see page 11).
Good picture, no sound	• Press VOLUME +. • Release MUTING on the Remote Commander. • Check that the MTS button is set correctly. • Check that the TV/VIDEO or input select button is set correctly. • Set the SPEAKER selector to ON.
No picture (screen not lit), no sound	• Is POWER switched on? • Plug the unit into a wall outlet. • Check that the TV/VIDEO button is set correctly.
No color	• Is it a color program? • Adjust COLOR.
Snow and noise only	• Is it an active or correct channel? • Check the CABLE selector setting. • Check the ANT/AUX button setting. • Check antenna/cable connections.
Learning function on the Remote Commander does not work.	• Check the USE/LEARN selector setting. • Check that the Remote Commanders are positioned properly. • Check if the batteries are exhausted. • If there is fluorescent lamp near by, move the Remote Commanders away from it.

	SYMPTOM	CHECK AND ADJUST
GENERAL	 **Dotted lines or stripes**	This is often caused by local interference. (ex. cars, neon signs, hairdryers etc.) Adjust the antenna for minimum interference.
GENERAL	**Double images or ghosts**	Reflections from nearby mountains or buildings often cause this problem. A highly directional outdoor antenna or CATV cable may improve the picture.
GENERAL	**Remote control does not operate.**	• Check the battery in the Remote Commander.
GENERAL	**Try another channel.** It could be station trouble.	
CONNECTED EQUIPMENT	**No picture and/or sound for the connected equipment**	• Check that the TV/VIDEO button is set correctly. • Are the connections made firmly? • Is the power of the connected equipment turned on? • Is the connected equipment set correctly?

If the problem still cannot be solved, contact your nearest service facility.